



PATENT
ATTORNEY DOCKET NUMBER: 00786/310001

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Colleen Coyne
Printed name of person mailing correspondence

Colleen Coyne
Signature of person mailing correspondence

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Pierre Colas et al.	Art Unit:	1653
Serial No.:	10/066,965	Examiner:	Robinson, Hope A.
Filed:	November 13, 2001	Customer No.:	21559
Title:	TARGETED MODIFICATION OF INTRACELLULAR COMPOUNDS		

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SUBMISSION OF DECLARATION OF PIERRE COLAS

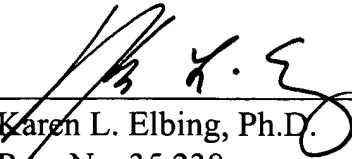
Applicants submit herewith the signed Declaration of Pierre Colas which was previously submitted with the Reply to Office Action on May 4, 2005 in the above-referenced application.

If there are any charges, or any credits, please apply them to Deposit Account No.

03-2095.

Respectfully submitted,

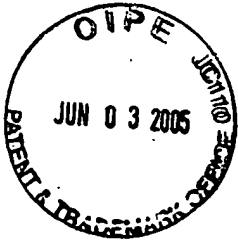
Date: 01 June 2005



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PATENT
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<u>Colleen Cayne</u> Printed name of person mailing correspondence	<u>Colleen Cayne</u> Signature of person mailing correspondence

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DECLARATION OF PIERRE COLAS

PIERRE COLAS hereby declares:

1. That I have, together with my coworkers, successfully used the yeast two-hybrid system (interaction trap) disclosed in the application US 10/066,965 to select peptide aptamers against a wide range of target proteins. In addition to Cdk2 and Bax target proteins disclosed in the application US 10/066,965, peptide aptamers were also selected against the GTPase activating protein RasGAP, the transcriptional repressor Fur, the adaptor protein Grb2, the protein kinases Raf, ERK1, and AKT1, and the chaperone

Hsp70.

2. That, in carrying out the above-mentioned two-hybrid selections, I have successfully used two additional libraries of peptide aptamers, bearing 8 and 13 amino acids respectively in their variable region. I have also used the library disclosed in the application US 10/066,965, in which most peptide aptamers bear 20 amino acids in their variable region and in which some peptide aptamers bearing longer variable regions are present. I have selected against some of the targets mentioned under point 1 peptide aptamers bearing 20 amino acids and up to 50 amino acids in their variable region.

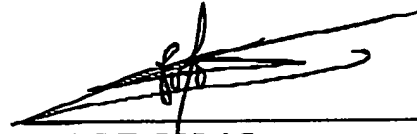
3. That I have compared the intensities of the yeast two-hybrid phenotypes observed with these aptamers with that of target-aptamer interactions that I had experimentally measured using the surface plasmon resonance technique. As judged from the interaction phenotypes observed with the lacZ reporter gene or with the more recently developed luciferase reporter genes, I conclude that for some of the above-mentioned target proteins, I have been able to select peptide aptamers whose apparent binding affinity lies in the single digit nanomolar range.

4. That I have transferred the variable regions of some of the above-mentioned peptide aptamers from *E.coli* thioredoxin to its human ortholog. In many cases, I have observed that the peptide aptamers bearing the same variable regions but embedded in the human thioredoxin retained their ability to interact with their cognate target protein, sometimes with a similar binding affinity that their *E. coli* counterparts. I therefore

confirm that human thioredoxin, an *E.coli* thioredoxin-like protein, is also a suitable platform for designing peptide aptamers according to the technology disclosed in the application US 10/066,965.

5. That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: May 12th, 2005


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PC